

*lowei* (Vincent), *Ploceus bicolor kigomaensis* (Grant & Praed) and *Serinus c. capistratus* (Finsch) (this last has also recently been obtained by D. Bromfield at Kitwe).

M. P. Stuart Irwin has drawn our attention to two males and a female of *Lagonosticta rubricata* collected by C. W. B. at Salujinga, 10° 58' S., 24° 07' E., in March, 1963, in the National Museum, Bulawayo. Compared with other material therein, from elsewhere in the Rhodesias and Nyasaland, the brown of the upper side is much darker, and the crown greyer, less pink. The Salujinga specimens appear to be near *L. r. congica* Sharpe, while the remainder are *L. r. haematocephala* Neumann, though a male and female from Ntambu, 12° 27' S., 24° 59' E., are intermediate.

## On birds new for New Guinea or with a larger range than previously known

by A. HOOGERWERF

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From January, 1959 till mid-June, 1961, and from February till the middle of September, 1962 the author worked at the Experimental Rice Estate "Kumbe" at Kurik in south New Guinea, studying mammals and birds harmful to rice cultivation. The work was carried out by order of the Director of the Agricultural Research Station at Manokwari.

Kurik's rice growing area covering some 750 acres, is situated about six miles north of the mouth of the Kumbe River and some 25 miles northwest of Merauke as the crow flies. This artificially irrigated flat area consists of two polders, known as the North (500 acres) and the South polder (250 acres). This whole cultivated area is inundated by water from an irrigation tank created by the partial impoldering of an extensive swamp, surrounded by thin *Eucalyptus* forest known as the Gali Ephata marsh. Though large parts of this swamp become dry during the East monsoon, this never or very rarely happens to the whole area and it is almost impossible that it will happen with the deeper impoldered part. Marsh and tank are mostly covered with low marsh and water plants with some trees and tree-groups scattered all over the area.

The surroundings of the Rice Estate consist almost exclusively of uninhabited savannahs, inundated for the greater part during the rainy season, dry or nearly dry during at least six months (June till November), except some lower enclaves holding water during all months. The desiccated savannahs covered with thin *Eucalyptus-Melaleuca* forests and "gempol" (*Nauclea orientalis*) on the more open places, which are covered with grass or a grasslike vegetation, are burnt down by the natives nearly every year, changing huge plains into black deserts and making the name fire-savannah very appropriate.

During 1956 till 1961 there was an annual rainfall at Kurik of 1715, 1737, 1460, 1315, 1739 and 1381 mm., with maxima of 323 (February), 427 (December), 264 (March), 415 (February), 402 (March) and 390 mm. (January) and minima of 51 (August), 0 (September), 4 (August), 3 (October), 11 (September) and 4 mm. (August) respectively.

During 1960 and 1961 the lowest morning temperature (between 5 and 6 a.m.) registered in June till October, was 17-20° C. and the highest temperature was recorded in November till May, viz. 27° C.

Most ornithological observations were made at Kurik and surroundings, but much attention has also been paid to the vast savannahs near the mouth of the Maro River, known as the Paal Putih plain; the beaches and adjacent plains between the Kumbe and Bian Rivers and—though in a smaller degree—to the Kumbe River itself for many miles upstream. Several trips were made to territories far west of the Bian River, *viz.* to the small island Habe between Merauke and the Frederik Hendrik Island, to this latter island and to the Asmat and Mappi regions (150–175 miles N.N.W. of Kurik).

Towards the end of September, 1962 I sailed to Manokwari via Sorong where I stayed some weeks. I worked at Manokwari on the north-west point of Geelvink Bay from October, 1962 till the beginning of April, 1963. Visits were paid to some settlements along Geelvink Bay (Andai, Ransiki, Oransbari), to the Kebar Valley (about 60 miles south-west of Manokwari, and 500 m. above sea-level) and the Anggi Lakes (west of Ransiki, about 1,200 m. above the sea). In the surroundings of Manokwari itself much attention was paid to the Forest Reserve “De Tafelberg” and to the well forested region between Manokwari and Andai, about 20 miles to the south.

Though my work at Kurik’s ricefields brought me out of doors nearly every day, only a limited part of my time could be spent on watching and collecting birds not belonging to species affecting rice cultivation. During my stay at Manokwari ornithological and ecological studies were carried out and special attention focussed on the reserve and surroundings, mostly covered with primeval forest.

Particulars given below refer only to species not as yet recorded as occurring in New Guinea (including the Australian part of the island), to birds of which occurrence was considered doubtful, or of which the known range did not include the present one. This knowledge was based on Mayr’s List of New Guinea Birds (10) and on literature which appeared after that list, though I might have overlooked some items, for which I apologize.

Typescripts dealing with all birds observed and collected are in preparation and some on the study of harmful birds are in print. The greater part of the collected material is in the Leyden Museum but all birds collected at Manokwari and the Vogelkop were seized by the Indonesians a day after my departure to Australia on April 9th, 1963 when West New Guinea was still under management of the UNTEA.

In the present list I have followed the names and sequence used by Dr. Ernst Mayr’s work (*loc. cit.*), which was a very valuable guide for me and an important stimulus to go on often under extremely difficult circumstances. In some cases I have changed the names in accordance with more recent literature.

#### 1. *Oceanites oceanicus* Kuhl

Wilson’s Storm Petrel

Of the Tubinares recorded on page 5 of Mayr’s list from the seas adjoining the Papuan Region, but not yet found in the area discussed here, Wilson’s Storm Petrel was identified for the first time (a single bird) on 11th November, 1959 when sailing from the Casuarinen coast to Agatz (about 137° E., 6° S.). On 25th September, 1962 the species was observed anew not far from the first locality *viz.* from the KPM vessel “Kasimbar”

when sailing between Frederik Hendrik Island and Kaimana (about 136° E., 6° S.). In the late afternoon shortly before sunset, a number was observed—always two or three together—apparently looking for food while flying low over the sea. The small, chocolate coloured bird with the clear white lower back which I knew on account of earlier observations, precluded any doubt about the identity

2. *Anhinga rufa* (Lacépède et Daudin) Darter or Snake Bird

For this species which may be considered of rather common occurrence within our area, Mayr mentions the Fly River as the most westerly part of the range along the south coast.

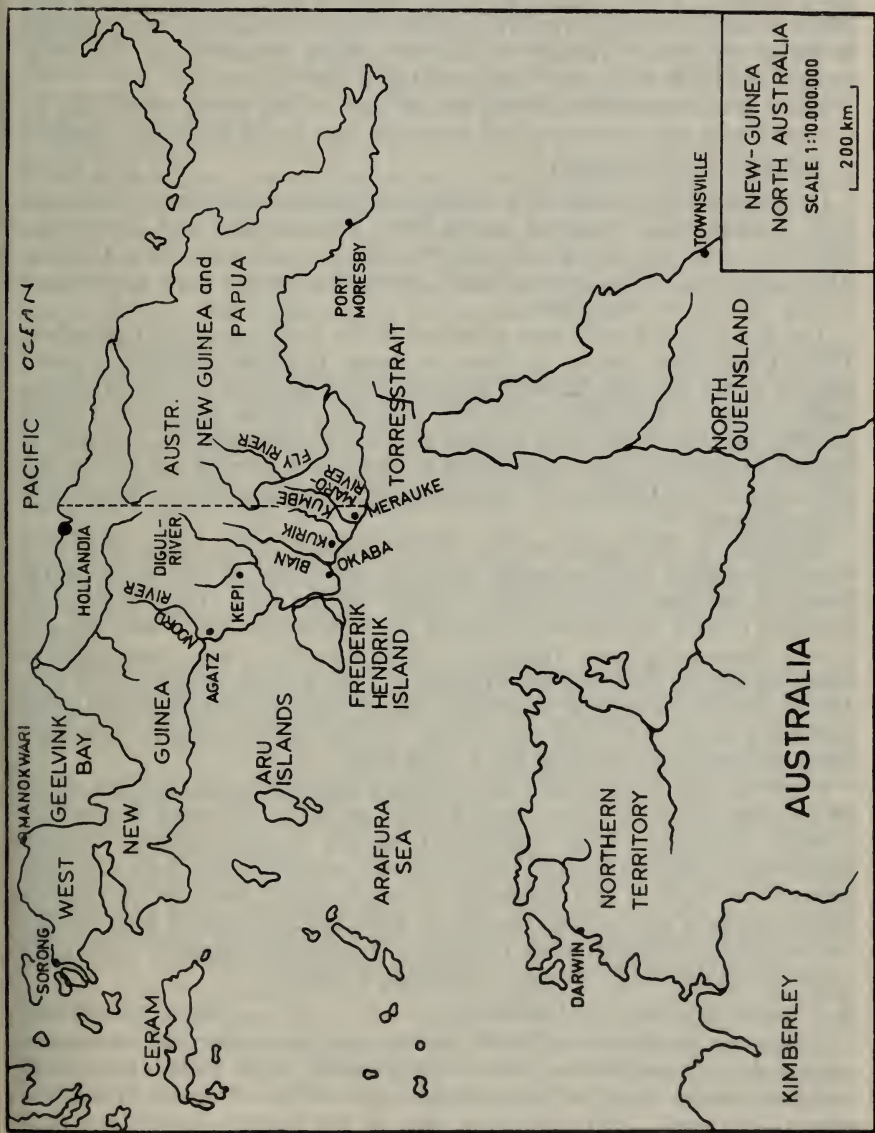
In the neighbourhood of Kurik, especially in the Gali Ephata swamp and upstream on the Kumbe River, it could be seen in every month, though there was much fluctuation in occurrence, apparently influenced by food supplies. The species was also seen in the Mappi district (November, December, 1959 and May, 1960) and on Frederik Hendrik Island (May, 1960). On 19th July, 1960, five and on 26th July, seven were seen together; on 16th August, 1962, 15–20, on 5th September about ten and on 11th September again five, all in the Gali Ephata area.

On 25th December, 1959 and on 19th June, 1960 I found a bird unable to fly on account of moult. Very noisy individuals were heard in December. Though a collected specimen apparently belongs to the subspecies *papua*, it is by no means certain that all observed ones belonged to this form and not to the Australian race *novae-hollandiae*.

The number of birds having light under parts outnumbered those showing black underneath; all those seen in August and September 1962 had light under parts! Because a young female collected and sexed by myself has some dark feathers on the whitish breast, some doubt arises as to whether it is indeed true that a light under body can be considered a character for all adult females of the Papuan race as assumed until now (Rand, 14). But in September 1936 females in laying condition were obtained by Rand (15) in the Middle Fly River area so that it seems fairly certain that adult females are whitish underneath, though breeding of birds in juvenile plumage may not be excluded as is known in other species, e.g. in *Sula rubripes* (Hoogerwerf 7). The Indonesian subspecies of *Anhinga rufa* (*melanogaster*) is known to have the under parts black or blackish in both sexes.

3. *Notophox novaehollandiae* Latham White-faced Heron

This is a species which was not known from the area under discussion here. Mayr records it for Wanial (Princess Marianne Strait) and from Mabaduan and Daru, far east of Merauke; Junge (9) mentions it also for the surroundings of Merauke where it was also seen in 1935. This heron is of regular appearance in the region between the Maro and Bian Rivers and further west to at least the Eilanden River. Though the White-faced Heron was never observed in such large flocks as was sometimes *Notophox picata*, it could be seen each month in Kurik's ricefields and surroundings and along the coast. I also saw some near Kepi, Mappi region (December, 1959). The maximum number met with was about 15 (5th May, 1961 in the ricefields) and six on 26th November, 1960 along the beach between the Kumbe and Bian Rivers, to which the species apparently has more preference than has the smaller *N. picata*.



4. *Notophoyx pacifica* (Latham) White-necked Heron

Not previously recorded from New Guinea but we observed this striking bird on two occasions in Kurik's ricefields. On 2nd May, 1961 no less than three together were foraging on a wet ricefield of the North polder and about a month later, on 11th June, there was one in similar surroundings in the South polder. Though we did our utmost to secure one, we failed because the birds were very wary and stayed only a short time.

There is no other heron living in this part of the world which can be confused with this species, which precludes any doubt about the identity.

5. *Bubulcus ibis* (Linnaeus) Cattle Egret

During my stay in south New Guinea all species of *Ardeidae* known from New Guinea were observed except two: *Bubulcus ibis* and *Zonerodius heliosylus*, but they were recorded by me in north-west New Guinea. Representatives of the heron family were of extremely rare appearance during my stay at Manokwari.

The first Cattle Egrets were observed in the morning of 5th December, 1962; there were twelve of them on some trees surrounding a small pasture along the road between the aerodrome Rendani and Andai, some miles south of Manokwari. In the afternoon when passing the same locality, all these birds were feeding near some grazing cattle. Because of leaving Manokwari for a service trip to Oransbari, I could not re-visit the place until towards the end of December and then there were no longer any Cattle Egrets.

However, in the late afternoon of 16th March, 1963, about forty fast flying specimens were observed close to my house at the Agricultural Research Station, several miles outside Manokwari. They apparently returned from a neighbouring area of pastures where 15-20 were present during the ensuing days. Though the birds were very wary, I succeeded in shooting one on 19th March. At about 1 o'clock in the afternoon of 20th March, 25 Cattle Egrets were seen, flying over the Research Station's gardens and on 3rd April there were 22. No further observations were made because I left New Guinea a week later.

From the middle of March an increasing number showed distinct traces of a spring plumage, most clearly present on the occiput and foreneck.

Mayr remarks: "twice recorded from the Papuan Region: Wageu (Stein) and Yamna (Doherty); both probably winter visitors from China or Japan." In view of this statement it seems worth while to publish my observations of such a large number of these egrets, a species with which I am particularly familiar since I studied it in Indonesia together with many other heron-like birds for many consecutive years.

6. *Threskiornis spinicollis* (Jameson) Straw-necked Ibis

This is not mentioned in Mayr's list but a couple of years ago some were observed in the Australian part of this island by K. R. Slater (16) and by van den Assem (1) in the former Dutch part of New Guinea. In the first case (1st August, 1957) five were seen in the Mekeo Sub-district in a disused ricefield at the edge of an extensive swamp area. One was obtained, and in the second case (June, 1957) a single specimen was seen "amidst a flock of white ibisses" within the area where we made our observations.

I saw the species fairly regularly though observations during the rainy season were rare indeed. During December we have only one record;

during January and March not one and in February only in the period of the 2nd till the 10th (1959). Most frequently it could be seen in September (six times in 1960, three in 1962), In October (four times in 1959, three in 1960), in May (five times in 1962) and in November (once in 1959, twice in 1960). It rarely happened that solitary birds were met with (seven times during three years); as a rule I saw three to ten, but on five occasions there were 18 to 25 (September and October), twice 40–50 (October, November), once about 75 (6th September, 1962) and once 75–100 (3rd September, 1960).

Observations in the ricefields were not at all rare but more often we saw the species within the Gali Ephata marsh and this is also the locality where we observed the largest numbers together. The birds could be found looking for food as often on dry ground as in swampy areas or in shallow water, but I failed to see one along the beach. From a flock of about 40, foraging in a dry marsh, no less than five (all females!) were secured with one single shot (Gali Ephata, 7th November, 1959).

#### 7. *Platalea regia* Gould

#### Royal Spoonbill

Mayr's list calls the Spoonbill an occasional straggler in New Guinea, known from Port Moresby and the Vogelkop. However, during our stay in south New Guinea I saw spoonbills in almost any month and periodically very regularly and fairly often in large numbers. Observations were most rare in April (1961, one), September (1960, one), January (1959 and 1961, two), July (1959, 1960, two), August (1960, two), November (1960, two), December (1959, 1960, two) and March (1959, 1961, three). Most observations date from the month of October (1959 (1), 1960 (10) and 1962 (1)); in May and February I saw them eight and in June six times. When on my way to Manokwari I saw a solitary spoonbill at Sorong (1st October, 1962).

Observations of solitary birds were not very common (nine times) and also two together were not seen frequently (ten times); generally there were flocks of 5–20 but much larger groups were no exception: on 3rd February, 1960 there were 50 together flying over the mouth of the Maro River quite close to Merauke. Similar flocks were recorded within the Gali Ephata area (27th and 28th October, 1960) and on 17th May, 1961 there were about 60 crossing over the South polder where I had seen about 48 ten days earlier. The largest flock I ever saw in south New Guinea consisted of 150–200 flying from east to west over the South polder on 8th June, 1960 and on 20th May, 1961 there were 11 and 125 flying over the same area in a north-westerly direction. On 31st October, 1960 several small flocks were seen flying over the Gali Ephata swamp in a south-westerly direction.

As a rule the ricefields were visited by small groups only, but on 14th June, 1960, there were 18 in the North polder, on 26th April, 1961, nine and on 6th May, 14 in the South polder. Without exception I saw the birds feeding in shallow water, principally in fresh water but sometimes also on mudbanks along the shore and fairly regularly in the mouth of the Maro River.

On 22nd January, 1961 a specimen was observed apparently in breeding plumage, but generally all spoonbills seen were in non-breeding plumage. On 12th October, 1960 I saw two without even a trace of a crest and four days later about 20 similar individuals along the Kumbé River; they gave the impression of being juveniles, on account of their smaller size, short

bills and well feathered faces. Ten days later (on 27th October) there were about 50 similar birds, mixed with adults with very worn occipital crests.

8. *Dendrocygna eytoni* Gould Plumed Whistling Duck

There is no certainty that I observed even a single specimen of this duck alive, but it could be recorded on account of material obtained at night in Kurik's ricefields. It was evident that this duck visited the ricefields in April and September, 1959 and in May, 1961. On 17th April, 1959 a female was examined with a well developed ovarium; on 1st September a female and two males and on 3rd September four ♂♂ and four ♀♀ were obtained. Among these birds there were only two females with well developed ovaria and a male shot on 5th September had medium-sized gonads (length of testes about 15 mm.) but two females and one male examined on 9th September showed the reproductive organs poorly developed as was the case with a female on 10th May and two secured on 18th May, 1961.

Altogether 11 females and eight males were examined of which several skins were prepared. Most of these birds had taken rice from a freshly sown crop and they were all secured during periods in which small numbers of *Dendrocygna guttata* and some *D. arcuata* were regular nocturnal visitors to the (wet) ricefields.

Mayr's list mentions only one uncertain specimen recorded by de Vis from Daru Island (June, 1896).

9. *Dendrocygna arcuata* (Horsfield) Wandering Whistling Duck

Together with *Dendrocygna guttata* this was the most common duck observed during my stay in south New Guinea. Between 16th and 27th January, 1961 about 25 acres of fallow ricefields were visited every night by 1,500–3,000 *D. arcuata* in company of *D. guttata* with maxima of a counted number of about 3,000 during 19th January till 21st and on the 27th. Between January, 1959 and the middle of May, 1961 and during February till June, 1962, I examined 543 *D. arcuata* which were shot in the ricefields at night.

The largest percentage had well-developed gonads during the first three months of the year and several females were found to have fully formed eggs in the oviduct of which some were preserved. This is not the place to publish the results of my study on this and the other species of duck obtained in the ricefields but I should like to emphasize that my experience with *D. arcuata* is in contrast with the supposition made in Mayr's list "in New Guinea possibly largely a winter visitor from Australia". This is also the experience of Rand (15) who obtained 2 ♂ and 1 ♀ at lake Daviumbu (Middle Fly River area) which proved to be in breeding condition. On account of my work on this Whistling Duck I am of the opinion that it must be considered as breeding within south New Guinea, perhaps migrating to Australia when searching for better feeding localities after intensive droughts forced the birds to leave New Guinea, but they should not be considered winter visitors from Australia.

10. *Anas querquedula* Linnaeus Garganey Teal

Though the Kapara (Mimika) and the Oriomo Rivers are mentioned as the only localities where the Garganey has been found in south New Guinea, this teal proved to be of rather common appearance in the ricefields of Kurik and along the shore between the Maro and Bian Rivers

during the winter months of the temperate zones, though there were considerable annual fluctuations during my stay in New Guinea. The species was found rather numerous during January till March, 1961, within fallow, very wet ricefields as well as along the beach between the Kumbe and the Bian Rivers and also on an experimental rice plot along the Maro River opposite Merauke.

I counted 60–70 specimens on 20th, 24th and 26th January, 1961; on 30th January of that year 75 and on 7th March, 1962 about 150 were seen. Along the shore their numbers were smaller as a rule but on 11th March, 1962 about 100 were counted along the beach.

Generally large flocks within the ricefields were not mixed with other ducks but in smaller groups the birds were often with *Anas superciliosa* and along the beach also with *Anas gibberifrons*. From the examination of stomach and gizzard contents it was evident that these ducks too were looking for rice when in the ricefields, but on the beach they frequented mudbanks under shallow water, no doubt preying on animal organisms.

All individuals examined by me had small gonads; the latest date on which I saw this species in south New Guinea was 7th May.

On 16th January, 1963 I secured a solitary specimen at Manokwari in a small freshwater pool near the aerodrome Rendani. In accordance with Gyldenstolpe (6) Bergman found the species rather numerous on Lake Atinju (Vogelkop) in February, 1948 where five were secured.

#### 11. *Aythya australis* (Eyton)

Australian White-eye

“Once recorded from Waigeu or the Vogelkop (Bruyn)” wrote Mayr of this duck, mentioning as habitat “lakes”. It could be observed repeatedly in the ricefields of Kurik but more often along the beach between the Kumbe and the Bian Rivers and apparently it belongs to the regular visitors to that part of New Guinea during the winter of the temperate zones. Beyond January, February, March and April, however, I failed to observe it in this part of New Guinea. This makes it probable that the bird is a straggler from Australia because conditions for waterfowl over there seem most favourable from June.

On the nights of 27th January, 1960 and of 8th April, 1961 single specimens were shot in Kurik’s ricefields. The first (♀ with a well granular ovary including several ova of 1–2 mm.) was brought together with 10 *Dendrocygna guttata* and one *D. arcuata*; the second (♀ with very small gonads) in company with five *Anas superciliosa*. Generally I saw the species together with this last duck (in the ricefields), e.g. on 27th March, 1961 five in a flock of 23 *A. superciliosa* and along the beach (e.g. on 19th February and 9th April, 1961) repeatedly several together with all three *Anas* species regularly visiting this part of New Guinea (*A. superciliosa*, *A. gibberifrons* and *A. querquedula*). In the ricefields the species fed on rice and grass seeds but along the shore no doubt on animal organisms.

Probably some small flocks were observed on one of the Anggi lakes (about 1,200 m. above sea-level, Vogelkop, north-west New Guinea) in the first days of March, 1963, but the swimming birds were too far away for me to be absolutely sure of their identity.

When flying *Aythya australis* can be easily recognised from the other ducks visiting south New Guinea because of much white on the remiges.

(to be continued.)